

## **Remarks**

### **I. Informalities**

The Applicants have amended the abstract and the specification to correct the informalities noted in the most recent Office Action. Additionally, the claims have been amended to address the Examiner's objections.

### **II. Substantive rejections**

The Examiner rejected claims 1-16 under 35 U.S.C. § 103(a) as being unpatentable over Mitra (U.S. Patent No. 5,533,063) in view of Lee (U.S. Patent No. 6,570,919). The Applicants respectfully traverse the rejection.

Mitra does not teach a decoding process as required by amended claim 1 (*e.g.* "A method of iteratively detecting and decoding encoded and interleaved symbols transmitted on a transmission channel") and claim 10 (*e.g.* "A system of detecting and iteratively decoding encoded and interleaved symbols"). Mitra also does not teach any interleaving or de-interleaving processes, and therefore does not apply the iterative channel re-estimation procedure as recited in claims 1 and 10.

Furthermore, Lee does not disclose any interleaving of the encoded stream prior to transmission. This limitation is recited in claim 1 (*e.g.* "A method of iteratively detecting and decoding encoded and interleaved symbols transmitted on a transmission channel") and claim 10 (*e.g.* "A system of detecting and iteratively decoding encoded and interleaved symbols"). This interleaving process appears on Fig 1a and Fig. 1d-3d of the present application. At the transmission side, this interleaving process enables exchanging a priori information between the equalization and decoding processes. This is explicitly recited in amended claim 1: "*differentiating between the contribution of the transmission channel and the contribution of decoding.*"

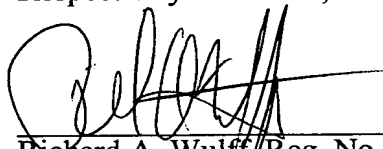
Thus, Mitra and Lee do not teach or suggest all of the limitations of claims 1 and 10, even if somehow combined. Accordingly, the Applicants respectfully request that claims 1-16 be allowed.

In re Application of: Berthet et al.  
Application No. 09/636,237

### III. Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



Richard A. Wulff/Reg. No. 42,238  
GARDNER CARTON & DOUGLAS LLP  
191 N. Wacker Drive, Suite 3700  
Chicago, Illinois 60606-1698  
(312) 569-1000 (telephone)  
(312) 569-3000 (facsimile)

Date: June 8, 2004

### CERTIFICATE OF MAILING

I hereby certify that this RESPONSE TO OFFICE ACTION (along with any documents referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date: 6-8-04

